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Job satisfaction of primary care physicians in Switzerland: an observational study

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Job satisfaction of primary care physicians in Switzerland - an observational study

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Abstract

Background: Job satisfaction of physicians is an important issue for performance of a health care system. The aim of the study was to evaluate the job satisfaction of primary care physicians in Switzerland and to explore associations between overall job satisfaction, individual characteristics and satisfaction with aspects of work within the practice separated by gender.

Methods: This cross-sectional study was based on a job satisfaction survey. Data were collected from 176 primary care physicians working in 91 primary care practices. Job satisfaction was measured with the 10-item Warr-Cook-Wall job satisfaction scale. Stepwise linear regression analysis was performed for physicians separated by gender.

Results: The response rate was 92.6%. Primary care physicians reported the highest level of satisfaction with 'freedom of working method' (mean= 6.45) and the lowest satisfaction for 'hours of work' (mean= 5.38) and 'income' (mean= 5.49). Moreover, some aspects of job satisfaction were rated higher by female physicians than male physicians. Within the stepwise regression analysis the aspect 'opportunity to use abilities' ($\beta = 0.644$) showed the highest association to overall job satisfaction for male physicians while for female physicians it was income ($\beta = 0.733$).

Conclusions: The presented results contribute to an understanding of factors that influence levels of satisfaction of female and male physicians. Therefore, research and intervention about job satisfaction should consider gender as well as the stereotypes that come along with these social roles.

Key words: gender, health care system, job satisfaction, physician, primary health care, Switzerland

Introduction

Primary care physicians count among the main providers of health care.^{1,2} Thereby, physicians' job satisfaction is an important issue for the stability and the performance of a health care system and could influence the next generations' professional choice.³ Moreover, there is evidence that job satisfaction of professionals affects patient satisfaction with care and is associated with stress and burnout as reported by physicians.^{4,5} Feelings of job dissatisfaction and job stress are problems shared by primary care physicians in many countries.^{6,7}

In general, the concept of job satisfaction was defined by Herzberg et al.⁸ They distinguished between intrinsic satisfaction such as recognition, the work tasks themselves or the level of responsibility on the one hand, and extrinsic satisfaction like working conditions, company policy, health political frameworks or salary on the other.⁸ The concept of intrinsic and extrinsic satisfaction is reflected by the Warr, Cook, and Wall job satisfaction scale which was modified by Cooper et al. to a 10-item job satisfaction scale.^{9,10}

As for the influencing factors, it is known that working conditions have an important impact on job satisfaction and a high workload is associated with lower performance.⁵ Furthermore, it has been shown that job satisfaction of general practitioners decreases with the number of working hours and low income and increases with contact with other colleagues and more variety in job.¹¹ Moreover, gender seems also to have an impact on job satisfaction as it is shown by studies from the United Kingdom and Germany.^{12,13}

Current data from the statistics of the Swiss Medical Association FMH show that more than 35.0% of primary care physicians are women.¹⁴ Feminization is one of the trends shaping the health workforce in Switzerland and could have an impact on how medicine is practiced.¹⁵ Requirements concerning working conditions could differ between women and men, female physicians tending to work more part time than their male colleagues.¹⁶ Especially, in the ambulatory care sector, the difference is observable: on average, female physicians work one day less per week than male physicians.¹⁵ Thereby, it could be assumed that influencing

factors concerning job satisfaction might be different between men and women. As supplement, the Swiss health care system is mainly financed through private health insurance. Primary care practices in Switzerland are part of the private sector. Thus physicians are either private entrepreneurs or employed by a practice.¹⁵ A recently published study from Cohidon et al. showed that primary care physicians had a weekly workload over 46.6 hours per week and often worked in group practices (52.3%).¹⁷ However, as reported by Cohidon et al. there are no reliable data available to describe demographic characteristics of primary care physicians in Switzerland.¹⁷

To summarize, the aim of the study was to evaluate the job satisfaction of primary care physicians in Switzerland and to explore associations between overall job satisfaction, individual characteristics and satisfaction with aspects of work within the practice separated by gender.

Materials and methods

The assessment of job satisfaction among primary care physicians in Switzerland is one component of the European Practice Assessment (EPA).¹⁸ The latter consists of a set of quality indicators for external and internal assessment, a patient survey of satisfaction with care, a staff job satisfaction survey, an outreach visit by a trained visitor, structured feedback and a team-meeting in the practice.¹⁸ In Switzerland EPA is organised by the EQUAM Foundation.¹⁹ Practices must pay for their participation (4200 Swiss Franc). As a motivational aspect practices get a certificate if they successfully complete EPA. Further information about EPA in Switzerland is given in Goetz et al.²⁰

Design and participants

The study used data from the routine implementation of quality management in ambulatory care in Switzerland, in line with regulations from 1994 which are related to the quality of care and were enshrined in the health insurance act.²¹ Data were collected from 91 practices, which had used the EPA methodology and published elsewhere.²⁰ 190 primary care physicians worked in these practices. Not all physicians enrolled into EPA participated in the job satisfaction survey. The study thus includes 176 primary care physicians in Switzerland who have undertaken the EPA and participated simultaneously in the job satisfaction survey. Our analysis concentrates on current data that were collected between 2011 and 2013.

Measures

All participants completed the same written questionnaire. The questionnaire included the following items: 1) Individuals were asked to complete questions about gender and age, as well as how many hours a week they worked at their practice and how many years they worked in this practice, and, 2) Job satisfaction was measured with the German modified version of the Warr-Cook-Wall (WCW) job satisfaction scale developed by Warr et al.^{9,10} and

often used in German primary health care settings.^{13,22,23} The WCW instrument measures overall job satisfaction and satisfaction with 9 aspects of work, with each item rated on a 7-point Likert scale (1= extreme dissatisfaction to 7= extreme satisfaction). A higher overall mean score indicates higher job satisfaction. Moreover, two items of working atmosphere were developed for the EPA instrument; these were “clear responsibilities within the team” and “good working atmosphere within the practice team”. Each item rated on a 5-point Likert scale (1= fully disagree to 5= fully agree). A higher overall mean score indicates a better working atmosphere.

Data analysis

The analyses were performed using SPSS version 20.0 (SPSS Inc., Chicago IL, USA). First, a descriptive analysis was performed concerning the 10 items of the job satisfaction scale and the two items of working atmosphere. Means, standard deviations and 95% confidence intervals of these items are reported. Furthermore, non-parametric Mann-Whitney U test with list wise exclusion of missing data were used for group comparison between job satisfaction and gender of primary care physicians. Afterwards, a stepwise linear regression analysis was performed for physicians separated by gender. The overall job satisfaction was defined as outcome and the other elements of satisfaction with work, working atmosphere and characteristics of participants (mode of practice, location of practice, number of non-physician and physician per practice, age of the physician, actually working hours per week and period in the practice) were potential predictors. Additionally, the possibility for multicollinearity was considered. The variance inflation factor (VIF) and the value of tolerance were reported for the last step of both regression models. Values for VIF should not be over 5.0 and for tolerance not lower than 0.25.²⁴ An alpha level of $p < 0.05$ was used as test for statistical significance.

Ethical approval

Ethical approval was not required because we used secondary data available from the routine implementation of a quality management program in primary care in Switzerland.²¹ All elements of the EPA were anonymized for data analysis in our study. No additional information or data from patients or staff were collected.

Results

Description of the study population

Out of 190 primary care physician questionnaires handed out, 176 questionnaires were returned (response rate: 92.6%). The study population consists of 64.2% (n= 113) male physicians and 35.8% (n= 63) female physicians. The participants who returned their questionnaire had a mean age of 49.1 years (SD= 8.8). The mean age differs significantly ($p= 0.001$) between men (mean= 50.9 years) and women (mean= 46.1 years). On average, physicians worked 38.2 (SD= 15.9) hours per week. Female physicians worked 27.6 (SD= 15.3) hours per week on average, whereas male physicians worked actually 44.3 (SD= 12.8) hours per week on average. The mean period of employment at the practice was 12.4 years (SD= 9.7). Background information from participating practices as well as the study population is presented in detail in Table 1.

= Table 1

Table 2 shows the results from the WCW job satisfaction scale and the two items of working atmosphere. The overall job satisfaction of primary care physicians rated rather high (mean= 6.16). The rating was highest for satisfaction with '*freedom of working method*' (mean= 6.45) and lowest considering satisfaction with '*hours of work*' (mean= 5.38) and '*income*' (mean= 5.49). Regarding the working atmosphere there was a high agreement for both '*good working atmosphere in the practice team*' (mean= 4.57) and 'clear responsibilities within the practice team' (mean= 4.50).

=Table 2

Table 3 shows the comparison of female and male physicians regarding job satisfaction. Female physicians are significantly more satisfied with 'physical working condition', 'freedom

of working method', 'recognition for work', 'hours of work', and 'amount of variety in job' than male physicians.

=Table 3

Table 4 shows the stepwise regression analysis of the individual characteristics, satisfaction with aspects of work and working atmosphere on overall satisfaction for male primary care physicians. A model with 5 steps was carried out and explained more than 70% ($r^2 \sim 0.70$) of the variance on the dependent variable '*overall job satisfaction*'. These were five items of satisfaction with aspects of work. A higher score in each item is associated with higher score of job satisfaction. In the first step of the stepwise regression analysis the item 'opportunity to use abilities' showed the highest score ($r^2 = 0.409$) of explained variance. The statistics of collinearity ranged between 1.853 (VIF-value), 0.540 (tolerance value) for 'opportunity to use abilities' and 1.337 (VIF-value), 0.748 (tolerance value) for 'physical working condition'.

=Table 4

For female physicians the stepwise regression analysis is presented in Table 5. A model with 4 steps was carried out and explained more than 67% ($r^2 \sim 0.67$) of the variance on the dependent variable '*overall job satisfaction*'. These were three items of satisfaction with aspects of work and one item of working atmosphere ('working atmosphere in the practice team is good'). In the first step of the stepwise regression analysis the item 'income' showed the highest score ($r^2 = 0.529$) of explained variance. The statistics of collinearity ranged between 2.051 (VIF-value), 0.488 (tolerance value) for 'income' and 1.046 (VIF-value), 0.956 (tolerance value) for 'working atmosphere in the practice team is good'.

= Table 5

Discussion

To our knowledge there has been little research on job satisfaction of primary care physicians in Switzerland. The presented results contribute to an understanding of factors that influence levels of satisfaction of female and male physicians. The socio-demographic results of our study population are similar with data from OECD. The average physician age in general was 48.4 in 2010 in Switzerland¹⁵ and in our sample 49.1. Moreover, the proportion of male and female primary care physician are also similar to the official statistics of the Swiss Medical Association FMH.¹⁴ Comparing our results regarding demographic characteristics with the study published by Cohidon et al. the proportion of group practices as well as the working hours per week for the whole study sample seems similar.¹⁷ Moreover, our results showed that female physicians are younger and had fewer working hours per week.

Regarding the evaluation of satisfaction with different aspects on job situation the item 'freedom of working method' showed the highest score in our study population. The lowest score of satisfaction was observed for hours of work and income, a result that was also reported in other studies concerning primary care in Germany.^{13,22} In a further study with Swiss doctors from different medical specialties it was observed that primary care physicians stated an increasing dissatisfaction, especially with their income situation.²⁵ Moreover, Djalali et al. reported low income rates for primary care physicians compared to specialists in the Swiss medical health care system. These findings could partially explain our results regarding comparatively low satisfaction with income.²⁶

In contrast to a German survey with GPs, our Swiss sample rated their job satisfaction higher in all items.²² Therefore, it can be assumed that primary care physicians in Switzerland are more satisfied with their job than German GPs. Multiple reasons could account for that finding: As the recent Commonwealth Survey showed, Swiss GPs complain less than German GPs about administrative workload.²⁷ Furthermore, with about 25 patient contacts per day, Swiss GPs have much fewer patient contacts per day such as German GPs.²⁸

The reported levels of job satisfaction in our sample are concordant with results from a Norwegian GP study. They also found high levels of satisfaction regarding opportunities to use their abilities, colleagues and fellow workers, amount of variety in job variation, and freedom of working method.²⁹ In addition, a systematic literature review showed that amount of variety in job and contacts with colleagues increase the feeling of being satisfied.¹¹

Moreover, our results on the evaluation of job satisfaction showed that nearly all aspects of job satisfaction were rated higher by female physicians than male physicians. Only the item 'income' scored similar for both groups. Surveys with GPs in the United Kingdom and Germany equally reported higher satisfaction for female physicians than for their male colleagues.^{12,13} In previous studies, the finding that women are even more satisfied with their job than men despite the fact that they often encounter less favourable conditions – especially regarding income - was explained by the fact that women, by socialization, have lower expectations concerning their work.^{30,31} Thus, we can speculate that socialization effects are still at work when women in our sample reported equal or higher satisfaction than their male colleagues.

The regression models separated for gender showed different factors being associated with overall satisfaction and only little indication of collinearity was observed. The multivariate analysis provides first information about associations with overall job satisfaction under consideration of potential predictors. The strongest association with overall satisfaction for male primary care physicians was the intrinsic aspect of 'opportunity to use their abilities' with more than 40% of explained variance and for female physicians the extrinsic factor 'income' with more than 52% of explained variance. Partially, these results could find an explanation in the fact that women work more part time than men. It can then become important, in respect to job satisfaction, to still be able to consider it sufficient in respect to the hours of work, this factor scoring third in the regression model for women. Age could also be an explanation for men putting more importance on physical working conditions, this factor scoring second in the regression analysis. Most of these results show different

preferences of male and female primary care physicians and suggest that intervention for improving job satisfaction can benefit from a gender specific approach. It could be hypothesized that female physicians are more motivated by extrinsic factors and male physicians are more motivated by intrinsic factors. However, further research is necessary for clarification of preferences. As discussed above only few studies exist which consider gender as an influencing variable. Therefore, more research is needed. Moreover, job satisfaction could be important for preventing burnout.³² A study with European family doctors showed that burnout is associated with low job satisfaction and depends on the gender of physician.³³ For male physicians lower job satisfaction and high burnout level was observed.³³

Strengths and limitations

The study has strengths and weaknesses. It benefited from the usage of a well-known instrument which was validated in a large cohort of Australian medical practitioners.³⁴ The job satisfaction scale was already used in different studies about job satisfaction in primary care and dental care settings in Germany.^{13,22,23} However, the job satisfaction scale was not validated for Swiss primary care system. The ceiling-effect of this questionnaire should not be ignored by interpreting the results. The concept of job satisfaction especially the division in intrinsic and extrinsic factors which was evaluated with the Warr-Cook-Wall scale¹⁰ could have impacted the design of study through the selection of this specific questionnaire. Other questionnaires were ignored. Moreover, our sample is comparable regarding gender distribution with general statistics about the medical profession in Switzerland.^{15,14} However, we used a convenience sample of primary care physicians who had undertaken EPA and no distinction between specialties was made. Only practices were involved that had participated in the EPA quality management system, the study thus presenting a potential selection bias. Moreover, we did not evaluate whether physicians are employees or self-employed. Furthermore, our data reflect workload only partly. A more complete analysis would have to also include measures such as the number of consultations a day or the number of patients

in the practice. Finally, this was a cross-sectional study, and thus, we must be cautious to derive causal links from these findings.

Conclusions

In coming years, Switzerland, as well as other western countries, will be faced with a lack of physicians.³⁵ Thereby, different trends influencing the health workforce not only in Switzerland such as feminization or ageing affect the importance of different factors influencing job satisfaction. Recommendations for employment conditions within the field of working as a health care professional are outstanding.

Moreover, for the future it should be important to consider work-time models which are flexible enough to react on trends such as feminization or ageing of health care professionals. Motivated and satisfied health care professionals are an important resource to ensure health care. Our results suggest that research and intervention about job satisfaction should consider gender as well as the stereotypes that come along with these social roles.

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Competing interests:

On behalf of all authors no conflict of interest declared.

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Table 1: Practice and physician characteristics of the European Practice Assessment sample (2011-2013)

Characteristics	Participating EPA practices (n= 91)			
Mode of practice (solo practice)	35.2%			
Location of practice (urban practice)	38.6%			
No. of non-physician staff per practice, mean (SD)	5.0 (2.9)			
No. of physicians per practice; mean (SD)	3.7 (3.7)			
	Physicians (n=176)	Male (n= 113)	Female (n= 63)	p-value*
Age, years; mean (SD)	49.1 (8.8)	50.9 (8.5)	46.1 (8.6)	0.001
Actually working hours per week; mean (SD)	38.2 (15.9)	44.3 (12.8)	27.6 (15.3)	<0.001
Period in the practice; mean (SD)	12.4 (9.7)	14.7 (10.1)	8.2 (7.6)	<0.001

SD standard deviation, EPA European Practice Assessment

*Statistical significance $P < 0.05$ using the students t-test

Table 2: Descriptive statistics of job satisfaction items and working atmosphere

Items	Mean (SD)	CI (95%)	Median (IQR)
Job satisfaction ¹			
Physical working condition	5.79 (1.26)	5.59 - 5.98	6.0 (5.0-7.0)
Freedom of working method	6.45 (0.95)	6.29 - 6.58	7.0 (6.0-7.0)
Colleagues and fellow workers	6.33 (0.94)	6.18 - 6.47	7.0 (6.0-7.0)
Recognition for work	6.03 (1.09)	5.89 - 6.22	6.0 (5.5-7.0)
Amount of responsibility	6.30 (0.98)	6.16 - 6.46	7.0 (6.0-7.0)
Income	5.49 (1.35)	5.28 - 5.69	6.0 (5.0-7.0)
Opportunity to use abilities	6.30 (0.95)	6.18 - 6.46	7.0 (6.0-7.0)
Hours of work	5.38 (1.40)	5.18 - 5.60	6.0 (5.0-6.5)
Amount of variety in job	6.39 (0.79)	6.26 - 6.51	7.0 (6.0-7.0)
Overall job satisfaction	6.16 (0.99)	6.01 – 6.31	6.0 (6.0-7.0)
Working atmosphere ²			
Responsibilities within the practice team are clear	4.50 (0.92)	4.35 - 4.64	5.0 (4.0-5.0)
Working atmosphere in the practice team is good	4.57 (0.86)	4.42 - 4.69	5.0 (4.0-5.0)

¹ How satisfied are you with your....range from 1 “extreme dissatisfaction” to 7 “extreme satisfaction”; ² Did you agree with... range from 1 “fully disagree” to 5 “fully agree”

SD standard deviation, IQR (25%/75%) interquartile range between the 25th and the 75th percentiles

Table 3: Comparison of job satisfaction regarding primary care physicians' gender

Items	Female physicians (n= 63) Mean (SD)	Male physicians (n= 113) Mean (SD)	p-value*
Job satisfaction ¹			
Physical working condition	6.06 (1.28)	5.64 (1.23)	0.006
Freedom of working method	6.70 (0.64)	6.32 (1.07)	0.010
Colleagues and fellow workers	6.44 (0.82)	6.27 (1.00)	0.193
Recognition for work	6.29 (0.85)	5.88 (1.19)	0.035
Amount of responsibility	6.48 (0.78)	6.19 (1.06)	0.101
Income	5.49 (1.48)	5.49 (1.28)	0.676
Opportunity to use abilities	6.43 (0.78)	6.23 (1.04)	0.275
Hours of work	5.78 (1.34)	5.15 (1.38)	0.001
Amount of variety in job	6.59 (0.61)	6.27 (0.86)	0.019
Overall job satisfaction	6.35 (0.72)	6.06 (1.06)	0.098
Working atmosphere ²			
Responsibilities within the practice team are clear	4.56 (0.76)	4.47 (1.00)	0.791
Working atmosphere in the practice team is good	4.63 (0.79)	4.53 (0.90)	0.392

¹ range from 1 "extreme dissatisfaction" to 7 "extreme satisfaction"

² range from 1 "fully disagree" to 5 "fully agree"

*Statistical significance $P < 0.05$ using the non-parametric Mann-Whitney U test

SD standard deviation

Table 4: Associations of individual characteristics and satisfaction of aspects of work of male physicians on overall job satisfaction

(results of stepwise linear regression analysis, under specification of standardized beta coefficient, $\alpha = 5\%$)

	Step 1	Step 2	Step 3	Step 4	Step 5
Opportunity to use abilities	0.644	0.483	0.397	0.307	0.227
Physical working condition		0.482	0.396	0.365	0.347
Freedom of working condition			0.253	0.238	0.227
Colleagues and fellow workers				0.219	0.195
Amount of variety on job					0.175
Pseudo R²	0.409	0.613	0.655	0.688	0.704

Only coefficients with statistically significances at the $P < 0.05$ level were reported.

Table 5: Associations of individual characteristics and satisfaction of aspects of work of female physicians on overall job satisfaction

(results of stepwise linear regression analysis, under specification of standardized beta coefficient, $\alpha = 5\%$)

	Step 1	Step 2	Step 3	Step 4
Income	0.733	0.676	0.495	0.395
Working atmosphere in the practice team is good		0.285	0.285	0.274
Hours of work			0.276	0.314
Amount of variety on job				0.212
Pseudo R²	0.529	0.601	0.640	0.674

Only coefficients with statistically significances at the $P < 0.05$ level were reported.